

CLAIM AMENDMENTS

Please amend the claims to read as follows:

1. (currently amended) Apparatus for cleaning the surface of a rotating cylinder, the cylinder having a longitudinal axis and a cylindrical surface and being rotatable about said longitudinal axis, comprising:

a nozzle for directing pressurized fluid toward the cylindrical surface, the nozzle having an orifice with a longitudinal axis along which the pressurized fluid is directed, the axis of the orifice forming an acute angle with a portion of a tangent to the cylindrical surface at the point at which the axis of the orifice intersects the cylindrical surface, [the] said portion of a tangent extending from said point in the direction in which the cylindrical surface rotates, and

a cleaning head having a suction port adjacent the cylindrical surface, the suction port being positioned downstream from the nozzle in the direction in which the cylindrical surface rotates.

2. (original) The apparatus of claim 1 in which said acute angle is within the range of about 30° to about 80°.

3. (original) The apparatus of claim 1 in which said acute angle is within the range of about 35° to about 76°.

4. (original) The apparatus of claim 1 in which said acute angle is within the range of about 30° to about 50°.

5. (original) The apparatus of claim 1 in which said acute angle is within the range of about 30° to about 40°.

6. (original) The apparatus of claim 1 in which said nozzle is mounted on said cleaning head and is spaced from the suction port.

7. (currently amended) The apparatus of claim 6 in which said suction port has a longitudinal axis which forms an acute angle with a portion of a second tangent to the cylindrical surface at [the] a second point at which the axis of the suction port intersects the cylindrical surface, [the] said portion of a second tangent extending from said second point in the direction in which the cylindrical surface rotates.

8. (previously presented) Apparatus for cleaning the surface of a rotating cylinder, the cylinder having a longitudinal axis and a cylindrical surface and being rotatable about said longitudinal axis, comprising:

a nozzle for directing pressurized fluid toward the cylindrical surface, the nozzle having an orifice with a longitudinal axis along which the pressurized fluid is directed, the axis of the orifice forming an acute angle with a tangent to the cylindrical surface at the point at which the axis of the orifice intersects the cylindrical surface, the tangent extending in the direction in which the cylindrical surface rotates, and

a cleaning head having a suction port adjacent the cylindrical surface, the suction port being positioned downstream from the nozzle in the direction in which the cylindrical surface rotates,

said nozzle being mounted on said cleaning head and being spaced from the suction port,

said suction port having a longitudinal axis which forms an acute angle with a tangent to the cylindrical surface at the point at which the axis of the suction port intersects the cylindrical surface, the tangent extending in the direction in which the cylindrical surface rotates,

the cleaning head including a curved surface which is spaced from the cylindrical surface, the suction port being located in the curved surface, the nozzle being spaced from the curved surface.

9. (original) The apparatus of claim 1 in which said pressurized fluid is a mixture of air and liquid.

10. (original) The apparatus of claim 1 in which the nozzle includes a fluid cap having a rear end and a front end, a central fluid passage extending between the rear end and the front end, and at least one air passage in the front end offset from the central fluid passage, and an air cap mounted on the fluid cap and covering the front end of the fluid cap, said orifice being provided in the air cap.

11. (original) The apparatus of claim 10 in which the air cap is provided with an internal cavity which has a diameter greater than the diameter of the orifice.

12. (original) The apparatus of claim 11 in which the diameter of the orifice is greater than the diameter of the central fluid passage.

13. (original) The apparatus of claim 10 in which the diameter of the orifice is greater than the diameter of the central fluid passage.

14. (previously presented) Apparatus for cleaning the surface of a rotating cylinder, the cylinder having a longitudinal axis and a cylindrical surface and being rotatable about said longitudinal axis, comprising:

a nozzle for directing pressurized fluid toward the cylindrical surface, the nozzle having an orifice with a longitudinal axis along which the pressurized fluid is directed, the axis of the orifice forming an acute angle with a tangent to the cylindrical surface at the point at which the axis of the orifice intersects the cylindrical surface, the tangent extending in the direction in which the cylindrical surface rotates, and

a cleaning head having a suction port adjacent the cylindrical surface, the suction port being positioned downstream from the nozzle in the direction in which the cylindrical surface rotates,

said nozzle being mounted on said cleaning head and being spaced from the suction port,

said suction port having a longitudinal axis which forms an acute angle with a tangent to the cylindrical surface at the point at which the axis of the suction port intersects the cylindrical surface, the tangent extending in the direction in which the cylindrical surface rotates,

the nozzle including a fluid cap having a rear end and a front end, a central fluid passage extending between the rear end and the front end, and at least one air

passage in the front end offset from the central fluid passage, and an air cap mounted on the fluid cap and covering the front end of the fluid cap, said orifice being provided in the air cap, the air cap being provided with an internal cavity which has a diameter greater than the diameter of the orifice, and

a cylindrical insert which extends through the fluid cap and which provides the central fluid passage.

15. (previously presented) Apparatus for cleaning the surface of a rotating cylinder, the cylinder having a longitudinal axis and a cylindrical surface and being rotatable about said longitudinal axis, comprising:

a nozzle for directing pressurized fluid toward the cylindrical surface, the nozzle having an orifice with a longitudinal axis along which the pressurized fluid is directed, the axis of the orifice forming an acute angle with a tangent to the cylindrical surface at the point at which the axis of the orifice intersects the cylindrical surface, the tangent extending in the direction in which the cylindrical surface rotates, and

a cleaning head having a suction port adjacent the cylindrical surface, the suction port being positioned downstream from the nozzle in the direction in which the cylindrical surface rotates,

said nozzle being mounted on said cleaning head and being spaced from the suction port,

said suction port having a longitudinal axis which forms an acute angle with a tangent to the cylindrical surface at the point at which the axis of the suction port

intersects the cylindrical surface, the tangent extending in the direction in which the cylindrical surface rotates,

the nozzle including a fluid cap having a rear end and a front end, a central fluid passage extending between the rear end and the front end, and at least one air passage in the front end offset from the central fluid passage, and an air cap mounted on the fluid cap and covering the front end of the fluid cap, said orifice being provided in the air cap, and

a cylindrical insert which extends through the fluid cap and which provides the central fluid passage.

16. (original) The apparatus of claim 1 including a water tube for supplying water to the nozzle and a water flow meter connected to the water tube whereby the water flow rate can be varied with the speed of rotation of the cylinder to get the most effective cleaning at all speeds.

17. (previously presented) The apparatus of claim 1 in which the cleaning head includes a curved surface which is spaced from the cylindrical surface, the suction port being located in the curved surface, the nozzle being spaced from the curved surface.

18. (new) The apparatus of claim 1 in which said orifice is circular.

19. (new) The apparatus of claim 18 in which the diameter of said orifice is about 0.250 inch.